UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,060	03/30/2001	Shahadatulla Khan	11528/46401	1485

26646	7590	08/25/2004

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EXAMINER
SIDDIQI, MOHAMMAD A

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/822,060	KHAN ET AL.
	Examiner	Art Unit
	Mohammad A Siddiqi	2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 March 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-50 are presented for examination.

Specification

2.   Claim 49 is objected to because of the following informalities:

Claim 49 dependent on claim 70 and there is no claim 70, for examining

purpose claim 49 is dependent on claim 48. Appropriate correction is

required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in

this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4.   Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated

by Kumar et al. (6,269,080) (hereinafter Kumar).

5.   As per claims 1, 19, and 20, Kumar discloses a method for

transmitting information to a client over a communications network (col 5,

lines 14-40), comprising the steps of:

    registering the client with an agent at a multicast-enabled computer

    (col 5, lines 24-40);

    receiving, by the multicast-enabled computer, a multicast data item

    (col 5, lines 24-40);

    generating a unicast data item as a function of the received multicast

    data item (col 16, lines 35-45); and

transmitting, by the agent, the unicast data item to the registered client (col

5, lines 24-40, col 16, lines 35-45).

6.   As per claims 14, and 30, Kumar discloses a system for transmitting

multicast information to a client over a communications network,

comprising:

a client, wherein the client is a computer program handling the delivery of

multicast information to a user (application, col 5, lines 14-40, col 6, lines 7-

15);

an agent, wherein the agent is a computer program receiving multicast information and distributing the multicast information to the client using a unicast transmission (col 16, lines 35-44);

a source server, wherein the source server is a computer program managing the assignment of the client to the agent (col 5, lines 14-40, col 6, lines 7-15); a computing device including at least one of:

a program memory, wherein the program memory is adapted to hold some portion of at least one of a source server, the agent, and the client; a storage device, wherein the storage device contains at least one of the source server, the agent, and the client (col 5, lines 14-40, col 6, lines 7-15);

and a processor, wherein the processor is adapted to at least one of:

(i) load, from the storage device, some portion of at least one of the source server, the client, and the agent into the program memory (col 5, lines 14-40, col 12 31-39);

(ii) register the client with the agent at a multicast-enabled computer (col 5, lines 14-40, col 6, lines 7-15);

(iii) receive, by the multicast-enabled computer, a multicast data item (col 5, lines 14-40, col 6, lines 7-15);

(iv) generate a unicast data item as a function of the received multicast data item (col 16, lines 35-44); and

(v) transmit, by the agent, the unicast data item to the registered

client (col 16, lines 35-44).

7.   As per claims 2, 15, 21, and 31, Kumar discloses wherein the

communications network is the Internet (col 5, lines 37-40,col 6, lines 7-

15).

8.   As per claims 3, 16,22, and 32, Kumar discloses the registering step

further comprising the steps of:

generating, by the client, a request to join a multicast group (col 5,

lines 24-40);

transmitting the generated request to a source server (col 5, lines 24-

40);

maintaining, by the source server, a list of available agents (col 6,

lines 26-50);

designating, by the source server, an agent to provide service to the

client (col 6, lines 26-50); and

assigning, by the source server, the client to the designated agent (col 6,

lines 26-50).

9.   As per claims 4, 24, and 33, Kumar discloses wherein the source

server is distributed over a plurality of computer systems (col 5, lines 14-

65).

10.   As per claims 5, and 17, Kumar discloses the registering step further

comprising the steps of:

        generating, by the client, a request to join a multicast group (col 5,

lines 24-40);

        transmitting the generated request to a source (col 5, lines 24-40);

        maintaining, by the source server, a list of available agents (col 6,

lines 7-15);

        determining a composite distance metric for a client/agent pair (hops,

        col 15, lines 13-53);

        designating, by the source server, an agent to provide service to the

client as a function of the composite distance metric for the client/agent pair

(hops, col 15, lines 13-53); and

assigning, by the source server, the client to the designated agent (col 15,

lines 13-53).

11.   As per claims 6, and 18, Kumar discloses wherein the source server is

distributed over a plurality of computer systems (col 5, lines 14-65).

12.   As per claim 7, Kumar discloses further comprising: determining a composite distance metric for a client/agent pair (hops, col 15, lines 13-53).

13.   As per claim 8, Kumar discloses the registering step further comprising: registering the client with an agent at a multicast-enabled computer as a function of the composite distance metric (hops, col 15, lines 13-53).

14.   As per claims 9, and 25, Kumar discloses the registering step further comprising the steps of: generating, by the client, a request to join a multicast group;

transmitting the generated request to the agent at a multicast-enabled computer (col 5, lines 14-54); and

adding, by the agent, the client to a list of unicast recipients serviced by the agent (col16, lines 36-44).

15.   As per claims 10, and 26, Kumar discloses the registering step further comprising the steps of:

generating, by the client, a request to join a multicast group (col 5, lines 14-40);

transmitting the generated request to a primary agent at a multicast-enabled computer (col 5, lines 14-40);

maintaining, by the primary agent, a list of available agents (col 40-54);

designating, by the primary agent, a service provider agent to provide service to the client (col 5, lines 14-40, col 6, lines 7-15); and

assigning, by the primary agent, the client to the designated service provider agent (col 5, lines 14-40, col 6, lines 7-15).

16.   As per claim 11, Kumar discloses the registering step further comprising the steps of: generating, by the client, a request to join a multicast group (col 5, lines 14-40, col 6, lines 7-15);

transmitting the generated request to a primary agent at a multicast-enabled computer (col 5, lines 14-40, col 6, lines 7-15);

maintaining, by the primary agent, a list of available agents;

determining a composite distance metric (hops, col 15, lines 13-53) for a client/agent pair (col 5, lines 14-40, col 6, lines 7-15);

designating, by the primary agent, a service provider agent to provide service to the client as a function of the composite distance metric for the client/agent pair (hops, col 15, lines 13-53); and

assigning, by the primary agent, the client to the designated service provider agent (col 5, lines 14-40, col 6, lines 7-15).

17.   As per claim 12, Kumar discloses further comprising the step of: storing client information with the agent as a function of the registering step (col 5, lines 14-40, col 6, lines 7-15).

18.   As per claims 13, and 29, Kumar discloses the generating step further comprising the steps of: retrieving a destination address for the client from the stored client information (destination address is inherent in the context transmitting and receiving packets (col 16, lines 35-44); and

creating a unicast data packet wherein the destination address of the unicast data packet is the retrieved client destination address (destination address is inherent in the context transmitting and receiving packets, col 16, lines 35-44).

19.   As per claim 23, Kumar discloses the registering step further comprising the step of: maintaining, by the source server, a list of available agents (col 5, lines 14-40, col 6, lines 7-15).

20.   As per claim 27, Kumar discloses the registering step further

comprising the step of: maintaining, by the primary agent, a list of available

agents (col 5, lines 14-40, col 6, lines 7-15).

21.   As per claim 28, Kumar discloses further comprising the step of:

storing client information with the agent as a function of the registering step

(tree, col 5, lines 55-65).

22.   Claims 34-50 are rejected under 35 U.S.C. 102(e) as being anticipated

by Nurenberg et al. (6,181,697) (hereinafter Nurenberg).

23.   As per claim 34, Nurenberg discloses a method for registering a

unicast client with an agent at a multicast-enabled computer (fig 1),

comprising the steps of:

        generating, by the unicast client, a request to join a multicast group;

transmitting the generated request to the agent at the multicast-enabled

computer (fig 1-2, col 2, lines 15-41, col 3, lines 65-67, col 4, lines 1-19);

and

adding, by the agent, the unicast client to a list of unicast recipients serviced

by the agent (fig 1-2, col 2, lines 15-41, col 3, lines 65-67, col 4, lines 1-19,

col 6, line 31).

24.   As per claims 35, and 39, Nurenberg discloses a method for registering

a unicast client with an agent at a multicast-enabled computer, comprising

the steps of:

       generating, by the unicast client, a request to join a multicast group;

transmitting the generated request to a source server (fig 1-2, col 2, lines

15-41, col 3, lines 65-67, col 4, lines 1-19);

       designating, by the source server, the agent to provide service to the

unicast client (fig 1-2, col 2, lines 15-41, col 3, lines 65-67, col 4, lines 1-

19); and

       assigning, by the source server, the client to the designated agent (fig

1-2, col 2, lines 15-41, col 3, lines 65-67, col 4, lines 1-19).

25.   As per claims 36, and 40, Nurenberg discloses further comprising the

step of: maintaining, by the source server, a list of available agents

(sessions, fig 1-2, col 2, lines 15-41, col 3, lines 65-67, col 4, lines 1-19).

26.   As per claims 42, and 45, Nurenberg discloses a method for

maintaining, over a communications network, an agent list by a source

server, the agent list containing information about at least one agent, the

agent handling the sending of multicast transmission data to a client, the

client not being able to receive a multicast transmission directly (fig 1),

comprising the steps of:

    sending, by the agent, a status message to the source server on a

periodic basis (col 7, lines 40-48); and

updating the agent list as a function of the status message (Fig 4A, 4B, col

7, lines 43-55).

27.   As per claims 37, 41, 44,47, and 50, Nurenberg discloses wherein the

list of available agents is at least one of a database and a table containing

information about the agents (sessions, fig 4A, col 6, lines 48-67).

28.   As per claim 38, Nurenberg discloses wherein the source server is

distributed over a plurality of computer systems (fig 1).

29.   As per claims 48, Nuremberg discloses a method for maintaining, over

a communications network, an agent list by a source server, the agent list

containing information about at least one agent, the agent handling the

sending of multicast transmission data to a client, the client not being able

to receive a multicast transmission directly, comprising the steps of (fig 1-

5): polling, by the source server, the agent to obtain a status data item for

the agent (fig 5, col 7, lines 40-67); and updating the agent list as a

function of the status data item (fig 5, col 7, lines 40-67).

30.   As per claims 43, 46, and 49 Nurenberg discloses wherein the

communications network is the Internet (col 3, lines 49-53).

Conclusion

31.   The prior art made of record and not relied upon is considered

pertinent to applicant's disclosure:

        U.S. Patent 5,898,686

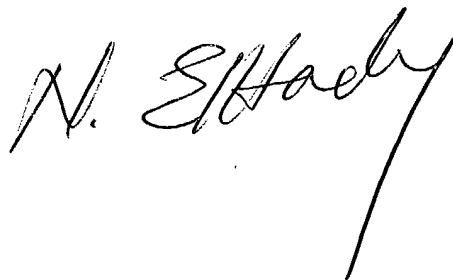   U.S. Patent 6,259,701

        U.S. Patent 6,418,138

    Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Mohammad A Siddiqi whose

telephone number is (703) 305-0353. The examiner can normally be

reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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